

RStudio

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Go to file/function Addins

Untitled1*

```
1 names<-c("siri","mahi","chiru")
2 age<-c(23,24,25)
3 marks<-c(88,78,25)
4 df<-data.frame(names,age,marks)
5 quantile(df $age)
6 write.csv(df,"datafr.csv")
7
```

Run Source

Environment History Connections Tutorial

Global Environment

age	num [1:3] 23 24 25
marks	num [1:3] 88 78 25
names	chr [1:3] "siri" "mahi" "chiru"
num	35
num1	2
num2	5
num3	0.4
x	5
y	6
z	3

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<input type="checkbox"/>	.RData	2.6 KB	Feb 22, 2024, 2:03 PM
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<input type="checkbox"/>	index.xlsx	31.3 KB	Jan 31, 2024, 10:50 PM
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<input type="checkbox"/>	WindowsPowerShell		
<input type="checkbox"/>	datafr.csv	81 B	Feb 22, 2024, 2:20 PM

Console Terminal Background Jobs

R 4.3.2 ~/
> names<-c("siri","mahi","chiru")
> age<-c(23,24,25)
> marks<-c(88,78,25)
> df<-data.frame(names,age,marks)
> IQR(df \$age)
[1] 1
> write.csv(df,"datafr.csv")
> names<-c("siri","mahi","chiru")
> age<-c(23,24,25)
> marks<-c(88,78,25)
> df<-data.frame(names,age,marks)
> quantile(df \$age)
0% 25% 50% 75% 100%
23.0 23.5 24.0 24.5 25.0
> write.csv(df,"datafr.csv")
>

```
1 data <- c(10, 20, 25, 30, 35, 40, 45, 50, 55, 60)
2 mean_value <- mean(data)
3 median_value <- median(data)
4 mode_value <- as.numeric(names(sort(table(data), decreasing = TRUE)[1]))
5 range_value <- max(data) - min(data)
6 variance_value <- var(data)
7 sd_value <- sd(data)
8 cat("Mean:", mean_value, "\n")
9 cat("Median:", median_value, "\n")
10 cat("Mode:", mode_value, "\n")
11 cat("Range:", range_value, "\n")
12 cat("Variance:", variance_value, "\n")
13 cat("Standard Deviation:", sd_value, "\n")
14
```

```
R 4.3.2 ~ /
> range_value <- max(data) - min(data)
> variance_value <- var(data)
> sd_value <- sd(data)
> cat("Mean:", mean_value, "\n")
Mean: 37
> cat("Median:", median_value, "\n")
Median: 37.5
> cat("Mode:", mode_value, "\n")
Mode: 10
> cat("Range:", range_value, "\n")
Range: 50
> cat("Variance:", variance_value, "\n")
Variance: 256.6667
> cat("Standard Deviation:", sd_value, "\n")
Standard Deviation: 16.02082
>
```

Environment		History	Connections	Tutorial
R		Global Environment	115 MiB	
max_value	20			
mean_value	37			
median_value	37.5			
minimum_value	2			
mode_value	10			
num1	NA_integer_			
numbers	num [1:5] 10 5 20 15 8			
range_value	50			
sd_value	16.0208197875972			
variance_value	256.666666666667			

Functions		
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IBM		
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OneNote Notebooks		
WindowsPowerShell		

```
1 names<-c("siri","mahi","chiru")
2 age<-c(23,24,25)
3 marks<-c(88,78,25)
4 df<-data.frame(names,age,marks)
5 mid range(df $age)
6 write.csv(df,"datafr.csv")
7
```

Console Terminal Background Jobs

R 4.3.2 · ~/

Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[Workspace loaded from ~/.RData]

```
> names<-c("siri","mahi","chiru")
> age<-c(23,24,25)
> marks<-c(88,78,25)
> df<-data.frame(names,age,marks)
> mid range(df $age)
Error: unexpected symbol in "mid range"
>
```

Environment History Connections Tutorial

Import Dataset 114 MiB

R Global Environment

Data

df 3 obs. of 3 variables

Values

age	num [1:3] 23 24 25
marks	num [1:3] 88 78 25
names	chr [1:3] "siri" "mahi" "chiru"
num1	NA_integer_

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<input type="checkbox"/>	IBM		
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<input type="checkbox"/>	OneNote Notebooks		
<input type="checkbox"/>	WindowsPowerShell		

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Go to file/function Addins

```
1 numbers <- c(5, 10, 3, 8, 2)
2 minimum_value <- min(numbers)
3 print(minimum_value)
4
```

R 4.3.2 · ~/

'citation()' on how to cite R or R packages in publications.

Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[Workspace loaded from ~/.RData]

```
> diabetest1<-read_excel("C:/Users/M.Geetha/Downloads/NARA.xlsx")
Error in read_excel("C:/Users/M.Geetha/Downloads/NARA.xlsx") :
  could not find function "read_excel"
> numbers <- c(5, 10, 3, 8, 2)
> minimum_value <- min(numbers)
> print(minimum_value)
[1] 2
> |
```

Environment History Connections Tutorial

Import Dataset 85 MiB

R Global Environment

Values

minimum_value	2
num1	NA_integer_
numbers	num [1:5] 5 10 3 8 2

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<input type="checkbox"/>	index.xlsx	31.3 KB	Jan 31, 2024, 10:50 PM
<input type="checkbox"/>	OneNote Notebooks		
<input type="checkbox"/>	WindowsPowerShell		

```

1 numbers <- c(10, 5, 20, 15, 8)
2 max_value <- max(numbers)
3 print(max_value)
4

```

4:1 (Top Level) R Script

Console Terminal Background Jobs

```

R 4.3.2 ~ /
> print(mean_value)
[1] 30
> # Create a vector of numbers
> numbers <- c(10, 5, 20, 15, 8)
>
> # Find the maximum value
> max_value <- max(numbers)
>
> # Print the maximum value
> print(max_value)
[1] 20
> numbers <- c(10, 5, 20, 15, 8)
> max_value <- max(numbers)
> print(max_value)
[1] 20
>

```

Environment History Connections Tutorial

Import Dataset 85 MiB

R Global Environment

Values

data	num [1:5] 10 20 30 40 50
max_value	20
mean_value	30
minimum_value	2
num1	NA_integer_
numbers	num [1:5] 10 5 20 15 8

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IBM		
index.xlsx	31.3 KB	Jan 31, 2024, 10:50 PM
OneNote Notebooks		
WindowsPowerShell		

Untitled1* x

Source on Save

Run

```
1 data <- c(10, 20, 30, 40, 50)
2 z_score_normalization <- function(data) {
3   mean_value <- mean(data)
4   sd_value <- sd(data)
5   normalized_data <- (data - mean_value) / sd_value
6   return(normalized_data)
7 }
8 normalized_data <- z_score_normalization(data)
9 cat("Original data:", data, "\n")
10 cat("Normalized data:", normalized_data, "\n")
11 |
```

11:1 (Top Level) R Script

Console

R 4.3.2 ~ /

Variance: 256.6667

```
> cat("Standard Deviation:", sd_value, "\n")
Standard Deviation: 16.02082
> data <- c(10, 20, 30, 40, 50)
> z_score_normalization <- function(data) {
+   mean_value <- mean(data)
+   sd_value <- sd(data)
+   normalized_data <- (data - mean_value) / sd_value
+   return(normalized_data)
+ }
> normalized_data <- z_score_normalization(data)
> cat("Original data:", data, "\n")
Original data: 10 20 30 40 50
> cat("Normalized data:", normalized_data, "\n")
Normalized data: -1.264911 -0.6324555 0 0.6324555 1.264911
> |
```

Project (None)

Environment History Connections Tutorial

Import Dataset 115 MiB

R Global Environment

numbers	num [1:5] 10 5 20 15 8
range_value	50
sd_value	16.0208197875972
variance_value	256.666666666667

Functions

evaluate_state	function (state)
game_over	function (state)
minimax	function (state, depth, maximizing_player)
possible_moves	function (state)
z_score_normalization	function (data)

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half adder.circ	3.2 KB	Jun 20, 2023, 11:44 PM
IBM		
index.xlsx	31.3 KB	Jan 31, 2024, 10:50 PM
OneNote Notebooks		
WindowsPowerShell		

```
1 a<-c(55,67,89,80,90)
2 barplot(a)
3 a<-c(55,67,89,80,90)
4 barplot(a)
5 barplot(a,horiz=TRUE)
6
```

```
R 4.3.2 ~/  
+ mean_value <- mean(data)  
+ sd_value <- sd(data)  
+ normalized_data <- (data - mean_value) / sd_value  
+ return(normalized_data)  
+ }  
> normalized_data <- z_score_normalization(data)  
> cat("Original data:", data, "\n")  
Original data: 10 20 30 40 50  
> cat("Normalized data:", normalized_data, "\n")  
Normalized data: -1.264911 -0.6324555 0 0.6324555 1.264911  
> a<-c(55,67,89,80,90)  
> barplot(a)  
> a<-c(55,67,89,80,90)  
> barplot(a)  
> barplot(a,horiz=TRUE)  
>
```

Environment History Connections Tutorial

Import Dataset 116 MiB

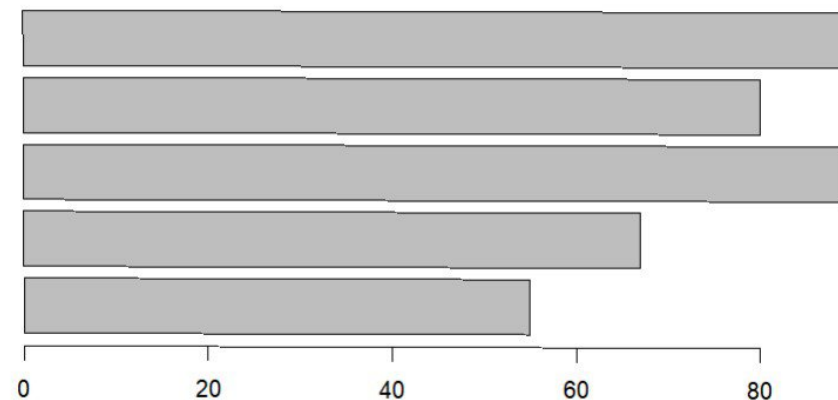
R Global Environment

Values

a	num [1:5] 55 67 89 80 90
best_move	-1
best_value	-Inf
data	num [1:5] 10 20 30 40 50
max_value	20
mean_value	37
median_value	37.5
minimum_value	2
mode_value	10

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Untitled1*

```
1 a<-c(55,67,89,80,90)
2 hist(a)
3
```

3:1 (Top Level) R Script

Console

```
R 4.3.2 · ~/
> cat("Normalized data:", normalized_data, "\n")
Normalized data: -1.264911 -0.6324555 0 0.6324555 1.264911
> a<-c(55,67,89,80,90)
> barplot(a)
> a<-c(55,67,89,80,90)
> barplot(a)
> barplot(a,hORIZ=TRUE)
> names<-c("siri","chru","loki")
> age<-c(23,24,25)
> marks<-c(88,78,25)
> df<-data.frame(names,age,marks)
> hist(df$age)
> boxplot(df$age)
> a<-c(55,67,89,80,90)
> hist(a)
>
```

Environment History Connections Tutorial

Import Dataset 118 MiB

R Global Environment

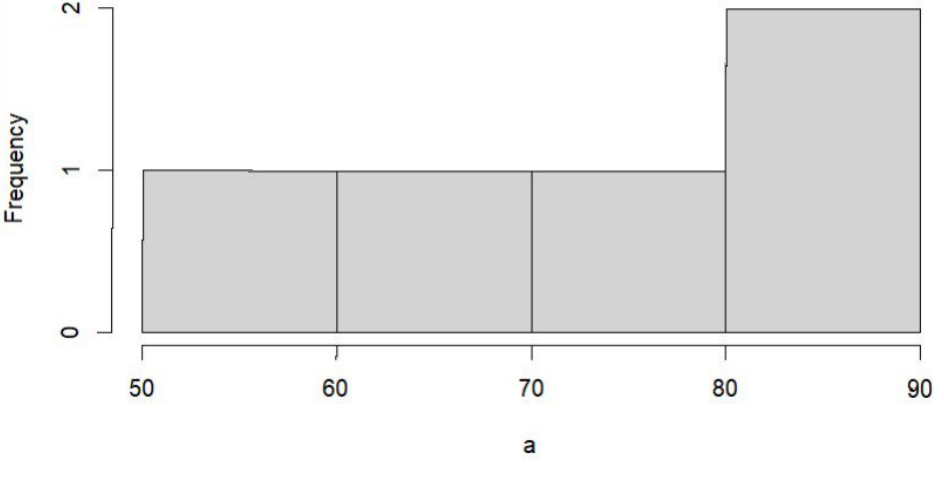
Values

a	num [1:5] 55 67 89 80 90
age	num [1:3] 23 24 25
best_move	-1
best_value	-Inf
data	num [1:5] 10 20 30 40 50
marks	num [1:3] 88 78 25
max_value	20
mean_value	37
median_value	37.5

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Histogram of a



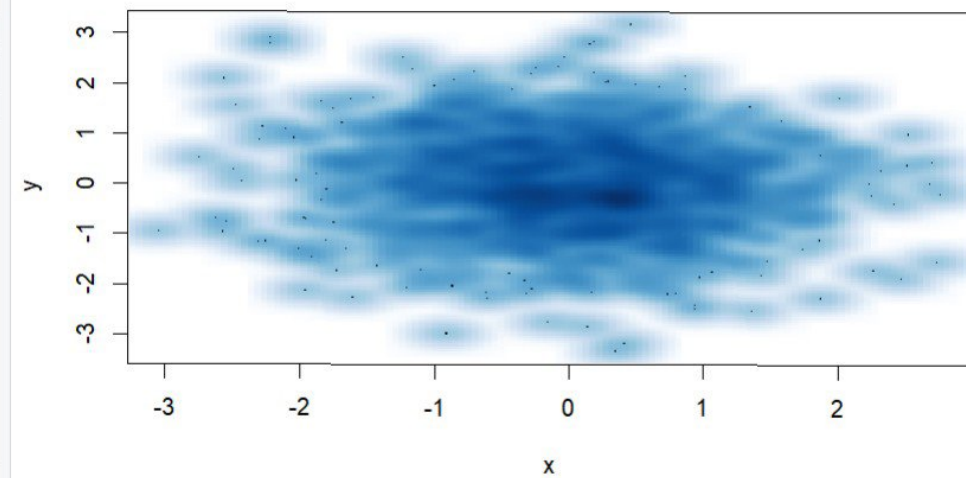
A histogram titled "Histogram of a" showing the frequency distribution of the values in vector 'a'. The x-axis is labeled 'a' and ranges from 50 to 90. The y-axis is labeled 'Frequency' and ranges from 0 to 2. There are four bars: the first bar (50-60) has a frequency of 1, the second bar (60-70) has a frequency of 1, the third bar (70-80) has a frequency of 1, and the fourth bar (80-90) has a frequency of 2.

Bin Range	Frequency
50-60	1
60-70	1
70-80	1
80-90	2


```
1 set.seed(9)
2 x <- rnorm(1000)
3 y <- rnorm(1000)
4 smoothScatter(y ~ x)
5 smoothScatter(x,y)
6
```

```
> barplot(a)
> barplot(a,hORIZ=TRUE)
> names<-c("siri","chru","loki")
> age<-c(23,24,25)
> marks<-c(88,78,25)
> df<-data.frame(names,age,marks)
> hist(df$age)
> boxplot(df$age)
> a<-c(55,67,89,80,90)
> hist(a)
> set.seed(9)
> x <- rnorm(1000)
> y <- rnorm(1000)
> smoothScatter(y ~ x)
> smoothScatter(x,y)
>
```

Environment	History	Connections	Tutorial
Global Environment	Import Dataset	137 MiB	
variance_value	256.666666666667		
x	num [1:1000] -0.767 -0.816 -0.142 -0.278 0.436 ...		
y	num [1:1000] 0.299 -1.127 0.582 0.855 -0.384 ...		
Functions			
evaluate_state	function (state)		
game_over	function (state)		
minimax	function (state, depth, maximizing_player)		
possible_moves	function (state)		
z_score_normalization	function (data)		



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Go to file/function Addins

Untitled1*

Source on Save

Run Source

```
1 x <- c(1, 2, 3, 4, 5)
2 y <- c(2, 3, 5, 4, 6)
3 model <- lm(y ~ x)
4 summary(model)
5 plot(x, y, main = "Linear Regression", xlab = "X", ylab = "Y")
6 abline(model, col = "red")
7
```

6:25 (Top Level)

R Script

Console Terminal Background Jobs

R 4.3.2 ~/

-0.2 -0.1 1.0 -0.9 0.2

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	1.3000	0.8347	1.558	0.2172
x	0.9000	0.2517	3.576	0.0374 *

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.7958 on 3 degrees of freedom
Multiple R-squared: 0.81, Adjusted R-squared: 0.7467
F-statistic: 12.79 on 1 and 3 DF, p-value: 0.03739

```
> plot(x, y, main = "Linear Regression", xlab = "X", ylab = "Y")
> abline(model, col = "red")
>
```

Environment History Connections Tutorial

Import Dataset 122 MiB

R Global Environment

variance_value	256.666666666667
x	num [1:5] 1 2 3 4 5
y	num [1:5] 2 3 5 4 6

Functions

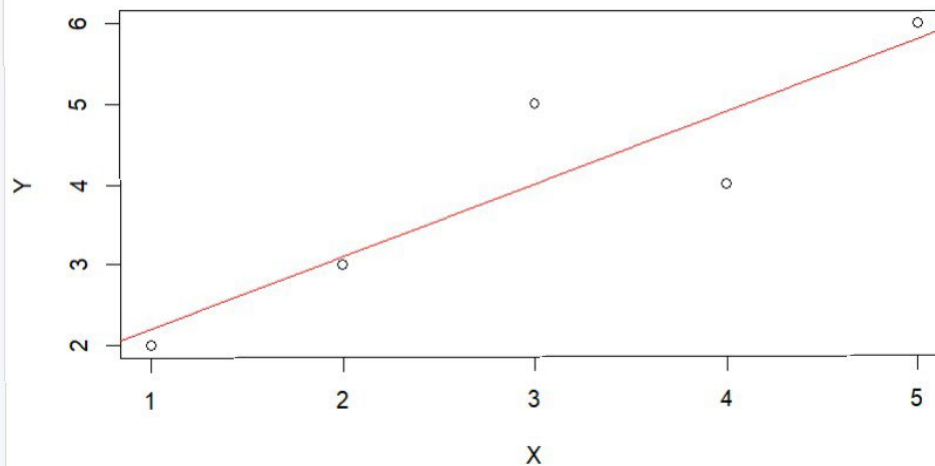
evaluate_state	function (state)
game_over	function (state)
minimax	function (state, depth, maximizing_player)
possible_moves	function (state)
z_score_normalization	function (data)

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Linear Regression



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Go to file/function Addins

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Source on Save Run Source

```
1 # Sample dataset
2 x1 <- c(1, 2, 3, 4, 5)
3 x2 <- c(2, 3, 4, 5, 6)
4 y <- c(3, 4, 5, 6, 7)
5
6 # Perform multiple regression
7 model <- lm(y ~ x1 + x2)
8
9 # Print the summary of the regression model
10 summary(model)
11 |
```

11:1 (Top Level) R Script

Console Terminal x Background Jobs x

R 4.3.2: ~/

```
> View(model)
> # Sample dataset
> x1 <- c(1, 2, 3, 4, 5)
> x2 <- c(2, 3, 4, 5, 6)
> y <- c(3, 4, 5, 6, 7)
>
> # Perform multiple regression
> model <- lm(y ~ x1 + x2)
>
> # Print the summary of the regression model
> summary(model)
```

Call:
lm(formula = y ~ x1 + x2)

Residuals:

Project: (None)

Environment History Connections Tutorial

Import Dataset 133 MiB

R Global Environment

Data

model List of 12

Values

num1	NA_integer_
x1	num [1:5] 1 2 3 4 5
x2	num [1:5] 2 3 4 5 6
y	num [1:5] 3 4 5 6 7

Files Plots Packages Help Viewer Presentation

Zoom Export

```
1 names<-c("siri","chru","loki")
2 age<-c(23,24,25)
3 marks<-c(88,78,25)
4 df<-data.frame(names,age,marks)
5 hist(df$age)
6 boxplot(df$age)
7
```

7:1 (Top Level)

R Script

Console Terminal Background Jobs

```
R 4.3.2 ~/  
> cat("Original data:", data, "\n")  
Original data: 10 20 30 40 50  
> cat("Normalized data:", normalized_data, "\n")  
Normalized data: -1.264911 -0.6324555 0 0.6324555 1.264911  
> a<-c(55,67,89,80,90)  
> barplot(a)  
> a<-c(55,67,89,80,90)  
> barplot(a)  
> barplot(a,hORIZ=TRUE)  
> names<-c("siri","chru","loki")  
> age<-c(23,24,25)  
> marks<-c(88,78,25)  
> df<-data.frame(names,age,marks)  
> hist(df$age)  
> boxplot(df$age)  
>
```

Environment History Connections Tutorial

Import Dataset 117 MiB

R Global Environment

best_move	-1
best_value	-Inf
data	num [1:5] 10 20 30 40 50
marks	num [1:3] 88 78 25
max_value	20
mean_value	37
median_value	37.5
minimum_value	2
mode_value	10
names	chr [1:3] "siri" "chru" "loki"

Files Plots Packages Help Viewer Presentation

Zoom Export

Publish

